

elongate strips, a plurality of spacer cross bars located between adjacent strips to define open ended slots between the assembly of strips, the spacer cross bars having a thickness defining the width of slots between adjacent strips, the spacer cross bars having a length less than four times their length, the spacer cross bars in an assembled screenplate being separated from each other at intervals approximately equal to two to twenty times the length of spacer cross bar, and the screenplate having an open area of up to 27%.

14. A method of constructing a screenplate for screening devices utilizing a plurality of strips having generally parallel side edges and a plurality of preformed spacers having a thickness approximately equal to the width of slots, the spacers being elongate with open areas through the surface and with the open areas wider than the strips, comprising the steps of:

- a. assembling an alternating stack of strips and spacers to define intercontacting surfaces,
- b. aligning the strips and spacers with the strips positioned relative to the spacers with each open area of the spacers extending past each side edge of the strips,
- c. metallurgically bonding the strips and spacers at their intercontacting surfaces, and
- d. trimming away the portion of spacers extending past the

side edges of the strips.

15. A method of constructing a screenplate for pulp and papermaking screening devices utilizing a plurality of strips having generally parallel side edges and a plurality of spacers having a width greater than that of the strips, the spacers being elongate with open areas through the surface and with the open areas wider than the strips, comprising the steps of:

- a. assembling an alternating stack of strips and spacers to define intercontacting surfaces,
- b. aligning the strips and spacers with the strips positioned centrally of the spacers with each open area of the spacers extending past each side edge of the strips,
- c. metallurgically bonding the strips and spacers at their intercontacting surfaces, and
- d. trimming away the portion of spacers extending past the side edges of the strips.

16. A screenplate having very fine slots of selected width for screening devices comprising a plurality of elongate strips having side edges, a plurality of elongate spacers having a thickness approximately equal to the width of slots in the screenplate, the spacers having a width approximately equal to the width of strips and a length less than four

times the width of spacers, and the spacers being separated from each other at intervals approximately two to twenty times the length of spacer, the strips and spacers being metallurgically bonded at intercontacting surfaces, and the screenplate having an open area of up to 27%.

17. A manufacturing preform for a screenplate having very fine slots of select width for screening devices comprising a plurality of elongate strips having side edges, a plurality of elongate spacers having a thickness approximately equal to the width of slots in the screenplate, the spacers having a plurality of open areas defined by sidepieces joined by cross bars, the strips and spacers arranged alternately in a stack to define intercontacting surfaces with the strips aligned centrally of the spacers so that a portion of the open areas of the spacers extends beyond the side edges of the strips, and the intercontacting surfaces of the strips and spacers being metallurgically bonded, and whereby a screenplate is formed by trimming away the sidepieces at the side edges of the strips.

18. A screen cylinder having a side wall screenplate with slots parallel to the cylinder axis comprising a plurality of elongate strips having side edges, a plurality of elongate spacers having a thickness approximately equal to the width of

slots in the screenplate, the spacers having a width approximately equal to the width of strips and a length less than four times the width of spacers, and the spacers being separated from each other at intervals approximately two to ten times the length of spacer, the strips and spacers being metallurgically bonded at intercontacting surfaces and the screen cylinder having a slot open area of up to 27%.

19. A screen cylinder as defined in claim 18 further having profile bars forming part of the cylinder side wall.

20. A screen cylinder as defined in claim 19 in which the cylinder side wall comprises sections of between two to twenty slots in width, and further wherein the sections are separated by the profile bars.

20. A screenplate having very fine slots of selected width for screening devices comprising a plurality of elongate strips having side edges, a plurality of elongate spacers having a thickness approximately equal to the width of slots in the screenplate, the spacers having a width approximately equal to the width of strips and a length less than four times the width of spacers, and the spacers being separated from each other at intervals approximately two to ten times the length of spacer, the strips and spacers being metallurgically


bonded at intercontacting surfaces, and the screenplate having an open area of up to 27%.

22. A screenplate for pulp and papermaking comprising a plurality of strips separated by spacers to define slots of uniform width between the strips, the spacers having a uniform length, the slots having uniform length, and the ratio of slot length to spacer length being in a range of 2-10:1.

23. A screenplate for pulp and papermaking comprising a plurality of strips separated by spacers to define slots of uniform width and length between the strips, the slots having a width of 0.005" or less and a length of 3" or less, and the slots forming at least 15% of the open area of the screenplate.

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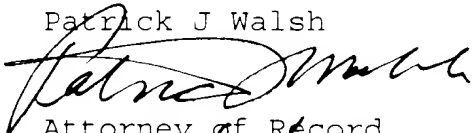
Respectfully submitted,

  
Patrick J. Walsh  
Attorney of Record

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I hereby certify that the attached document was sent via the United States Postal Service this 18th day of February 2003 in a first class postage prepaid envelope addressed to the Commissioner of Patents & Trademarks, Washington, D.C 20231.

Stamford, Connecticut  
February 18, 2003

Patrick J Walsh  
  
Attorney of Record  
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